



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
: Examiner: K. Tran
AKANE YOKOTA et al.)
: Group Art Unit: 2631
Application No.: 09/219,747)
: Filed: December 23, 1998)
: For: COMMUNICATION SYSTEM)
IN WHICH ARBITRARY :
NUMBER OF)
COMMUNICATION :
APPARATUSES FORM)
GROUP TO COMMUNICATE :
WITH EACH OTHER, AND)
THE COMMUNICATION :
APPARATUS) November 8, 2002

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination, the subject application having been refiled with a
Continued Prosecution Application Request Transmittal filed concurrently herewith, please
amend the above-identified application as follows:

IN THE CLAIMS:

Please cancel Claims 2 to 4 and 6 to 13 without prejudice or disclaimer of subject matter, and add new Claims 56 to 70 as set forth below. The claims, as pending in the subject application, now read as follows:

1. (Not Amended From Previous Version) A communication system which has a plurality of communication apparatuses and performs communication on the basis of system identification information assigned to said communication system, comprising:

requesting means for requesting group communication in a group by forming the group of a part of communication apparatuses in said communication system;

assigning means for assigning group identification information to manage the group communication in response to the request; and

communicating means for performing the group communication in the group on the basis of the group identification information assigned by said assigning means,

wherein said assigning means assigns the group identification information whenever the group is formed.

2. Canceled.

3. Canceled.

4. Canceled.

6. to 13. Canceled.

14. (Not Amended From Previous Version) A communication apparatus which performs communication on the basis of system identification information assigned to a communication system having a plurality of communication apparatuses, comprising:

requesting means for requesting group communication in a group by forming the group of a part of communication apparatuses in said communication system;

assigning means for assigning group identification information to manage the group communication in response to the request; and

communicating means for performing the group communication in the group on the basis of the group identification information assigned by said assigning means,

wherein said assigning means assigns the group identification information whenever the group is formed.

15. (Not Amended From Previous Version) The apparatus according to claim 14, wherein said communicating means performs multi-address calling in the group.

16. (Not Amended From Previous Version) The apparatus according to claim 14, where said communication system comprises a communication control apparatus having informing means for informing a communication apparatus, which has transmitted the request, of the group identification information.

17. (Not Amended From Previous Version) The apparatus according to claim 14, wherein said communication apparatus inquires of other communication apparatuses whether the apparatuses participate in the group communication, and assigns the group identification information in accordance with responses.

19. (Not Amended From Previous Version) The apparatus according to claim 14, wherein said assigning means releases the assigned group identification information when the group communication is complete.

20. (Not Amended From Previous Version) The apparatus according to claim 14, wherein said communicating means performs radio communication.

21. (Not Amended From Previous Version) The apparatus according to claim 20, wherein the radio communication is frequency hopping communication.

22. (Not Amended From Previous Version) The apparatus according to claim 21, wherein said communication system comprises a communication control apparatus for assigning a hopping pattern to each group and, said communicating means performs communication on the basis of the hopping pattern assigned by said communication control apparatus.

23. (Not Amended From Previous Version) The apparatus according to claim 22, wherein said communicating means performs the frequency hopping radio communication in synchronism with said communication control apparatus.

24. (Not Amended From Previous Version) The apparatus according to claim 21, wherein information transmission right in the group communication is assigned to each communication apparatus at each frequency.

25. (Not Amended From Previous Version) The apparatus according to claim 21, wherein said communicating means performs communication by using a communication frame for communicating information, and information transmission right in the group communication is assigned to each communication apparatus in accordance with a time during which one communication frame is communicated.

26. (Not Amended From Previous Version) The apparatus according to claim 14, wherein the group communication is performed on the basis of accounting information.

27. (Not Amended From Previous Version) A method of controlling a communication system which has a plurality of communication apparatuses and performs communication on the basis of system identification information assigned to said communication system, comprising the steps of:

requesting group communication in a group by forming the group of a part of communication apparatuses in said communication system;

assigning group identification information to manage the group communication in response to the request; and

performing the group communication in the group on the basis of the group identification information assigned in the assignment step,

wherein the assignment step comprises assigning the group identification information whenever the group is formed.

40. (Not Amended From Previous Version) A method of controlling a communication apparatus which performs communication on the basis of system identification information assigned to a communication system having a plurality of communication apparatuses, the method comprising the steps of:

requesting group communication in a group by forming the group of a part of communication apparatuses in said communication system;

assigning group identification information to manage the group communication in response to the request; and

performing the group communication in the group on the basis of the group identification information assigned in the assignment step,

wherein the assignment step comprises assigning the group identification information whenever the group is formed.

53. (Not Amended From Previous Version) A computer program product comprising a computer usable medium having computer readable program code means for performing communication on the basis of system identification information assigned to a communication system having a plurality of communication apparatuses, said computer readable program code means including:

first computer readable program code means for requesting group communication in a group by forming the group of an arbitrary number of communication apparatuses in said communication system;

second computer readable program code means for assigning group identification information to manage the group communication in response to the request; and

third computer readable program code means for performing the group communication in the group on the basis of the assigned group identification information.

54. (Not Amended From Previous Version) A communication system which has a plurality of communication apparatuses and performs communication on the basis of the system identification information assigned to said communication system, comprising;

requesting means for requesting group communication in a group by forming the group of a part of communication apparatuses in said communication system;

assigning means for assigning group identification information to manage the group communication in response to the request; and

communicating means for performing the group communication in the group on the basis of the group identification information assigned by said assigning means,

wherein a communication apparatus assigned the group identification information by said assigning means performs the group communication by said communicating means with adding the assigned group identification information to communication data.

55. (Not Amended From Previous Version) A communication apparatus which performs communication on the basis of system identification information assigned to a communication system having a plurality of communication apparatuses, comprising:

requesting means for requesting group communication in a group by forming the group of a part of communication apparatuses in said communication system;

storage means for receiving group identification information assigned by other communication apparatuses in response to a request of group communication by said requesting means, and storing the group identification information; and

communicating means for performing the group communication by transmitting communication data along with the group identification information stored in said storage means.

56. (New) A communication system comprising:

storage means for storing identification information identifying a group which has a plurality of communication apparatuses, in each of the plurality of communication apparatuses, at the time when the group is formed; and communicating means for performing a group communication on the basis of the identification information stored by said storage means.

57. (New) The system according to Claim 56, wherein said plurality of communication apparatuses include a communication managing apparatus performing a management of the group communication.

58. (New) The system according to Claim 57, wherein the communication managing apparatus transfers the management to another communication apparatus in the group, when the communication management apparatus leaves the group.

59. (New) The system according to Claim 56, wherein a new communication apparatus can subscribe to the group after the group has been formed.

60. (New) The system according to Claim 58, wherein the identification information is informed to other communication apparatus by a specific communication apparatus in the plurality of communication apparatuses.

61. (New) The system according to Claim 56, wherein the identification information is released when the group is released.

62. (New) A communication apparatus comprising:

storage means for storing identification information identifying a group, at the time when the group including said communication apparatus is formed with other communication apparatuses; and

communicating means for performing a group communication on the basis of the identification information stored by said storage means.

63. (New) The apparatus according to Claim 62, wherein the group includes a communication managing apparatus performing a management of the group communication.

64. (New) The apparatus according to Claim 63, wherein, if said communication apparatus is the communication managing apparatus, said communication apparatus transfers the management to another communication apparatus in the group, when said communication apparatus leaves the group.

65. (New) The apparatus according to Claim 63, wherein, if said communication apparatus is the communication managing apparatus, said communication apparatus informs the identification information to other communication apparatuses to be included in the group.

66. (New) The apparatus according to Claim 62, further comprising receiving means for receiving the identification information from other communication apparatus, and wherein said storage means stores the identification information received by said receiving means.

67. (New) The apparatus according to Claim 62, further comprising connection means for connecting said communication apparatus to information devices.

68. (New) A communication apparatus comprising:
decision means for deciding identification information identifying a group, at the time when the group including said communication apparatus is formed with other communication apparatuses; and
communicating means for performing a group communication on the basis of the identification information decided by said decision means.

69. (New) A communication method comprising:
storing identification information identifying a group, at the time when the group including said communication apparatus is formed with other communication apparatuses; and
performing a group communication on the basis of the stored identification information.

70. (New) A communication method comprising:
deciding identification information identifying a group, at the time when the
group including said communication apparatus is formed with other communication
apparatuses; and
performing a group communication on the basis of the decided
identification information.

REMARKS

Claims 1, 14 to 17, 19 to 27, 40 and 53 to 70 are in the application, with
Claims 2 to 4 and 6 to 13 having been canceled, and with Claims 56 to 70 having been
added herein. Claims 1, 14, 27, 40, 53 to 56, 62 and 68 to 70 are the independent claims.

Newly-added Claims 56 to 70 are believed to be supported in the subject
application, and are not believed to introduce new matter. Accordingly, favorable
consideration and allowance of the application is respectfully requested.

Applicants' attorney may be reached in our Costa Mesa, CA office at (714)
540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicants

Registration No. 40 595

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-2200
Facsimile: (212) 218-2200

CA_MAIN 52627 v 1